MODULE VIII
DEMILITARIZATION
MISCELLANEOUS TREATMENT UNITS

VIII.A. APPLICABILITY

VIII.A.1. The requirements of this module pertain to the miscellaneous units described in Attachment 14 (Demilitarization Miscellaneous Treatment Units) and listed below in Conditions VIII.A.1.a through VIII.A.1.d.:

VIII.A.1.a. Two Rocket Shear Machines (RSMs) including the associated rocket drain and shear stations located in the Explosion Containment Rooms (ECRs).

VIII.A.1.b. Two Projectile/Mortar Disassembly Machines (PMDs) located in the ECRs.

VIII.A.1.c. Three Multipurpose Demilitarization Machines (MDMs) and the associated Pick and Place Machines (PPMs) located in the Munitions Processing Bay (MPB).

VIII.A.1.d. Two Bulk Drain Stations (BDSs) located in the MPB.

VIII.A.1.e. One Mine Machine, designated as MHS-MIN-101, located in ECR B.

VIII.A.1.f. One Air Operated Remote Ordnance Access System (Cutter Machine), which can be located in either ECR, or in the MPB.

VIII.A.2. Notwithstanding the requirements specified elsewhere in this Permit, the Permittee may feed uncut bursters from 105-mm projectiles to the DFS provided that only an equipment malfunction or a related troubleshooting effort caused the uncut burster to be placed on the DFS feed gate. The Permittee shall document in the Operating Record the reason(s) that the burster was not sheared. The Permittee shall continue to implement the necessary corrective actions to minimize the occurrences of uncut bursters being fed to the DFS.

VIII.B. ALLOWABLE WASTE FEED

VIII.B.1. The Permittee may treat M55 rockets and explosive components (hazardous waste codes P999, D002, D003, D004, D005, D006, D007, D008, D009, D010) from munitions in the RSMs to comply with rates specified in Modules V and VI for the DFS.

VIII.B.2. The Permittee may treat 105-mm projectiles, 155-mm projectiles, and 4.2 inch mortars (hazardous waste codes P999, D002, D003, D004, and D006 through D010) in the PMDs and the MDMs/PPMs to comply with rates specified in Modules V and VI for the DFS and MPF.

VIII.B.3. The Permittee may treat ton containers, MK-116 bombs, and spray tanks (hazardous waste codes P999, D002, D003, D004, and D006 through D010) in the BDSs to comply with rates specified in Modules V and VI for the MPF.

VIII.B.4. The Permittee may treat M23 mines and mine components via the Mine Machine to comply with rates specified in Modules V (Long-Term Incineration) and VI (Short-Term

Incineration) for the DFS. The Permittee may process Mine Component Containers (MCCs), used to transfer mine components, through the Mine Machine as specified in Attachment 14 (Demilitarization Miscellaneous Treatment Units).

VIII.B.5. The Permittee is prohibited from treating waste in the miscellaneous units, identified in Condition VIII.A.1, that is not identified in Conditions VIII.B.1, VIII.B.2, VIII.B.3, and VIII.B.4.

VIII.C. **IGNITABLE AND INCOMPATIBLE WASTES**

VIII.C.1. Ignitable wastes (D001) shall not be treated in the ECRs or MPB.

VIII.C.2. The Permittee shall place only munitions or bulk containers with one type of chemical agent (e.g., GB or VX) in the MPB at one time. Only one chemical agent may be placed in the ECRs.

VIII.C.3. The Permittee shall not place chemical agent or munitions containing that chemical agent in a container that previously held a different chemical agent or munitions containing a different chemical agent until the container has been decontaminated to less than 1 TWA.

VIII.D. **DESIGN AND OPERATING REQUIREMENTS**

VIII.D.1. The Permittee shall comply with the design and operating requirements specified in Attachment 14 (Demilitarization Miscellaneous Treatment Units) of the Permit.

VIII.D.1.a. Undrainable agent filled rockets shall be processed in accordance with procedures that have been demonstrated during an approved DFS trial burn.

VIII.D.2. The Permittee shall comply with the requirements specified in the Attachment 9 (Contingency Plan) when there has been a release that escapes engineering controls or a fire, explosion, or detonation from the operation of the RSMs, PMDs, MDMs, Mine Machine, or BDSs.

VIII.D.3. If equipment in the ECRs or downline of the ECRs shuts down, any munitions or munition components being processed in the ECRs may remain in the ECRs until the equipment in question is operational. Alternatively, facility personnel may don appropriate PPE and physically retrieve the munitions or munition components from the ECRs and manually place the item(s) into an appropriate overpack for subsequent storage in the Toxic Maintenance Area (TMA). These activities shall be documented for each day of occurrence in the Operating Record.

VIII.D.4. If the equipment in the MPB or downline of the MPB shuts down, any bulk containers, munitions, or associated components being processed in the MPB may remain in the MPB until the equipment in question is operational. Alternatively, facility personnel may don appropriate PPE and physically retrieve munitions or munition components from the MPB and manually place the item(s) into an appropriate overpack for subsequent storage in the TMA. These activities shall be documented for each day of occurrence in the Operating Record.

VIII.D.5. The Permittee shall maintain sensors and interlocks identified as critical in the tables of Attachment 14 (Demilitarization Miscellaneous Treatment Units) so that they are functional when the associated miscellaneous unit is operating. The Permittee is allowed to complete processing of any partially processed munition when a sensor or interlock identified as critical ceases to function.

VIII.D.6. Munition rejects exiting any of the miscellaneous units identified in Condition VIII.A shall be transferred to the ECV, UPMC, MPB, or the TMA for pre-treatment under an Emergency Permit, returned to storage, or placed back into the miscellaneous unit to complete treatment. These activities shall be documented for each day of occurrence in the Operating Record.

VIII.E. **DETECTION, INSPECTION, AND MONITORING REQUIREMENTS**

VIII.E.1. As described in Attachment 14 (Demilitarization Miscellaneous Treatment Units), the Permittee shall monitor the waste throughput for each miscellaneous unit by use of the Process Data Acquisition and Recording System (PDARS) and the manual records maintained by the control room operators. Except as allowed by Permit Condition VIII.E.1.a., the Permittee shall use the Agent Quantification System (AQS) to quantify the amount of agent removed from the M55 rockets and the M23 mines in the ECRs. The Permittee shall use weighing, before and after draining, to quantify the amount of agent removed in the BDSs.

VIII.E.1.a. Undrainable agent filled rockets shall be processed in accordance with procedures that have been demonstrated during an approved DFS trial burn.

VIII.E.2. The Permittee shall use the bubbler system and load cells associated with the BDS to determine if a bulk container processed in the BDS is drained. If the Permittee is unable to determine if the bulk container is drained using the bubbler system and load cells, the Permittee shall orally notify the Executive Secretary within 24 hours. The Permittee shall record the bubbler reading and load cell reading for each bulk item drained in the Operating Record. If the quantity of agent removed, as determined in Condition VIII.E.1, is not consistent with a complete drain as indicated by the bubbler system, then the Permittee shall not feed the bulk container to the MPF and shall follow the requirements specified below. Except as allowed in Condition VIII.E.6., for the purpose of compliance with this Condition, if the quantity of agent removed from a bulk container is less than the following quantities, then the quantity removed is not consistent with readings indicating a complete drain:

MK-116 bomb - 329 pounds;
Spray Tank - 1273 pounds;
Ton Container (GB) - 1410 pounds
Ton Container (VX) - 1410 pounds
Ton Container (Mustard) - 1695 pounds

VIII.E.3. The Permittee shall conduct a physical measurement to ascertain the drain status. The Permittee shall record the results of this evaluation in the Operating Record.

VIII.E.3.a. For spray tanks only, the operator shall visually or physically inspect the position of the hole drilled in the nose cone of each spray tank. All inspections related to this Condition

shall be documented in the Operating Record. If the hole is determined to be in the agent cavity, the tray shall be re-positioned and another hole shall be drilled in the ballast or spacer section of the nose cone. The operator shall repeat the inspection as stated in this Condition.

VIII.E.4. If the evaluation conducted in accordance with Condition VIII.E.3. indicates that the drain is insufficient, then the Permittee shall notify the Executive Secretary as to which one of the following courses of action shall be implemented:

VIII.E.4.a. The Permittee shall perform corrective maintenance on the BDS. The bulk container will then be drained again. The drain status will be re-evaluated according to Condition VIII.E.3.; or

VIII.E.4.b. For VX ton containers only, the bulk container shall be processed in accordance with the procedures demonstrated in the approved VX trial burn. The maximum feed weight is in Module V.; or

VIII.E.4.c. The Permittee shall comply with the requirements in Condition VIII.E.11.

VIII.E.5. If the evaluation conducted in accordance with Condition VIII.E.3. indicates that the drain is sufficient, then the bulk container may be considered adequately drained and fed to the MPF. This determination shall be documented in the Operating Record.

VIII.E.6. If the fill weight for a given ton container, as listed in the Deseret Chemical Depot (DCD) inventory, is less than the standard fill weights (1800 lbs mustard, 1500 lbs VX, 1500 lbs GB) then the Permittee may opt to apply the following criteria when evaluating consistency between the quantity removed and the bubbler reading.

VIII.E.6.a. If the quantity of agent removed from a ton container is less than 95% of the DCD inventory weight, then the quantity removed is not consistent with a bubbler reading indicating a complete drain and the Permittee shall comply with Condition VIII.E.3. and Condition VIII.E.4. or VIII.E.5.

VIII.E.6.b. If the quantity of agent removed from the ton container is greater than or equal to 95% of the DCD inventory weight, then the ton container may be considered adequately drained and fed to the MPF.

VIII.E.7. The Permittee shall use the bubbler system and the AQS associated with the MDM to determine if projectiles or mortars processed in the MDM are drained. If the Permittee is unable to determine if the projectile or mortar is drained using the bubbler system and the AQS, the Permittee shall orally notify the Executive Secretary within 24 hours. An AQS adequate drain determination consists of an indication of flow into the AQS. The Permittee shall record the bubbler readings and the AQS reading for each projectile or mortar drained in the Operating Record. If the quantity of agent removed is not consistent with all complete drain indications for the munitions on that tray, then the Permittee shall not feed the tray of projectiles or mortars to the MPF and shall follow the requirements specified below:

VIII.E.7.a. The Permittee shall conduct a visual inspection and physical measurement to ascertain the drain status. The Permittee shall record the results of this evaluation in the Operating Record.

VIII.E.8. If the visual inspection and physical measurement evaluation conducted in accordance with Condition VIII.E.7.a. indicates that the drain is insufficient, then the Permittee shall orally notify the Executive Secretary as to which one of the following courses of action shall be implemented:

VIII.E.8.a. The Permittee shall perform corrective maintenance on the MDM. The munition will then be drained again. The drain status will be re-evaluated according to Condition VIII.E.7.a.; or

VIII.E.8.b. The Permittee shall comply with Condition VIII.E.11.

VIII.E.9. If the visual inspection and physical measurement evaluation conducted in accordance with Condition VIII.E.7.a. indicates that the drain is sufficient, then the munition may be considered adequately drained and fed to the MPF.

VIII.E.10. The method used to determine if a bulk container, projectile, or mortar is adequately drained shall be recorded in the Operating Record for each of these items processed.

VIII.E.11. Within 24 hours of discovery of any bulk container, projectile, or mortar which cannot be processed under Conditions VIII.E.2 through 6 and VIII.E.7 through 10, the Permittee shall notify the Executive Secretary and (1) properly manage the munition or bulk container in the Munitions Demilitarization Building; (2) request and receive approval for further processing; or both. A sample of the undrained liquid, or solid, or both shall be taken and analyzed for agent purity and metals content, unless a treatment method for the bulk container or munition type has been approved by the Executive Secretary in accordance with the procedures in R315-3-4.

VIII.E.12. The Permittee shall follow the inspection requirements for the equipment/processing lines associated with the miscellaneous units as specified in Attachment 5 (Inspection Plan).

VIII.E.13. The Permittee shall initiate repair of all chips and cracks in the epoxy coatings on the floors of the ECRs and MPB within 72 hours of detection.

VIII.E.14. The Permittee shall not conduct any DPE or related entries into areas which are contaminated with agent above the MPL.

VIII.E.15. The Permittee may repeat treatment, in whole or in part, via the Mine Machine if a mine cannot be verified as drained per Condition VIII.E.1. Prior to any other processing of a mine that cannot be verified as drained under Condition VIII.E.1., and within 24 hours, the Permittee shall notify the Executive Secretary. If treatment not specified in this Permit is required for further processing, the Permittee shall notify the Executive Secretary and request and receive approval for further processing.

VIII.E.16. The Permittee may use the Air Operated Remote Ordnance Access System (Cutter Machine) to cut into cylindrical items that have been rejected or require special handling. It may be used for nose closure removal, fuze removal, and access to interior

components. The Cutter Machine will be used in accordance with site approved operating procedures.

VIII.F. STORAGE REQUIREMENTS

VIII.F.1. The Permittee may store waste in the form of maintenance residues on the equipment in the ECRs or on the floor of the ECRs provided that Conditions VIII.F.2.and VIII.F.3. are satisfied.

VIII.F.2. Waste in the ECR sumps shall be removed within 24 hours as required by Module IV.

VIII.F.3. The explosive limits of each ECR, as specified in Attachment 14 (Demilitarization Miscellaneous Treatment Units), shall not be exceeded.

VIII.G. CLOSURE

VIII.G.1. At closure, the Permittee shall follow the procedures specified in Attachment 10 (Closure Plan).